T.T. 9/16/06

--CIRCUIT ARRANGEMENT WITH A SEPARATE RESONANT IGNITER FOR A HIGH-PRESSURE ~~Circuit arrangement~~ DISCHARGE LAMP--

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--This Application is a National Phase Application under 35 U.S.C. 371 claiming the benefit of PCT/IB03/05824 filed on 12/05/2003, which has priority based on EPO Application No. 03075109.3 filed on 01/14/2003.--

The invention relates to a circuit arrangement for operating a high pressure discharge lamp, equipped with a DC-AC-converter comprising

- input terminals for connection to a supply voltage source for supplying a first DC voltage,
- a first series arrangement of a first and a second switching element coupled between the input terminals,
- a first control circuit, coupled to respective control electrodes of the first and second switching element, for controlling the conductive state of the first and second switching element,
- a load circuit shunting one of the switching elements and comprising a first inductive element and terminals for lamp connection.

Such a circuit arrangement is well known. The DC-AC-converter is of the bridge type. During stationary operation of the lamp, the switching elements are controlled in such a way that the resulting lamp current is a low frequency substantially square wave shaped AC current. It has been found that such a current shape allows an efficient and dependable operation of the lamp. The known circuit is often equipped with a pulse igniter. The time lapse between successive pulses is generally so long that the lamp has to ignite under the influence of a single pulse since charge carriers in the lamp, generated by an ignition pulse have disappeared by the time the next ignition pulse is generated. Since the lamp has to ignite on a single ignition pulse, the amplitude and the width of this pulse need to be comparatively high. As a consequence the components making up the pulse igniter are bulky and expensive. An alternative possibility to ignite the lamp is to place a resonant capacitor in parallel with the lamp and render the first and second switching elements alternately conductive and non-conductive at a high frequency to thereby generate an AC voltage with a comparatively high amplitude over the lamp. However, for the voltage over the lamp to have a high enough amplitude, the bridge switches need to be operated at a frequency that is close to the resonance frequency of the load circuit of the DC-AC-converter. Furthermore, this requires that the first control circuit comprises additional